



XACCT *PacketSight* ™ Datasheet

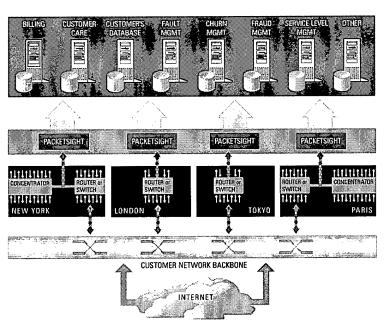
XACCT PacketSight offers total network visibility, capturing application-level traffic and attributes, exhaustive Quality of Service (QoS) metrics and performing dynamic session reconstruction.

XACCT PacketSight is a family of new software agents that extends the reach of the XACCT Network-to-Business (N2B) platform. These agents are packaged as a set of Information Source Modules (ISMs) within the XACCT N2B platform that provides a rich new information source of network protocol, attribute and exhaustive QoS metrics. The analyzer's data is subsequently aggregated and enhanced by XACCTusage—the engine of the N2B platform—providing customers with a new level of information and understanding of their network.

Network packet analyzer for IP Services:

- Unique QoS attributes for service level agreement accounting
- Application level view and service level view
- Customizable granularity and behavior
- Key enabling technology for:
 - · Service level agreement/verification/management
 - Business intelligence
 - Prepaid services
 - · Network element independent metering

XACCT PacketSight does sophisticated session reconstruction and application reconstruction of all of the popular Internet protocols. It fits seamlessly into XACCTusage, to maximize the value of the collected data. XACCT PacketSight is configured, installed, and managed in exactly the same way as any other XACCTusage information source module. XACCT PacketSight data can be enhanced and processed by any of XACCTusage's extensive library of service element and processing modules, enabling the broadest coverage of exhaustive network data collection on the market today—carrier class and billing grade.



XACCT *PacketSight* can automatically classify over 750 different network protocols and applications in over 3000 combinations using XACCT's NetStream Recognition Technology™, which dynamically tracks the status of hundreds of thousands of concurrent network conversations. This gives it the broadest, protocol and application recognition in the industry today.

XACCT PacketSight comprises tightly coded kernel-level C running on Solaris systems, reading all the packets from a network interface group. It offers a portable, scalable and customizable architecture that supplies comprehensive real-time network information for incorporation into intelligent networking solutions, such as bandwidth management, QoS, network monitoring, and security, all of which are dependent upon dynamic identification and classification of applications.

Netstream Recognition Technology

Static recognition of well-known ports:

- Application layer: HTTP, FTP, RTSP, Oracle...
- Basic layer: Ethernet, LLC, SNAP, ATM, ARP...
- Network layer: IP, IPX NETBEUI, ICMP, TCP, UDP...
- Transport layer: TCP, UDP, SPX, SMTP, SNMP, BGP...
- Tunneling: IPIP, IPX-tunnel...

Dynamic state-based recognition of protocols include:

- IP fragmentation
- Dynamic ports: RPC, FTP, RTSP, Exchange...
- Compound sessions: RTSP, H.323 (H.245, Q.931, RTP...)...
- Compound content: HTTP (image, text, application...), Email...

Dynamic Session Recognition

In addition to IP addresses and ports XACCT PacketSight:

- Looks at all network layers (2 through 7)
- Handles arbitrary tunneling
- Follows packet level state transitions for every packet:
- Protocol specific
- Following port allocation and usage
- Subflows (e.g., separate HTTP text, image flows from a persistent connection)
- Attributes

XACCT PacketSight Metrics and Statistics

Basic statistics

- N, \sum_{i} , $\sum_{x} x^{2}$, x_{max} , x_{min} , $\sum_{i} \{lx\}$
- RMON2-type metrics
- Bandwidth (packets, bytes)
- QoS metrics
- Jitter, response times, connections, terminations, errors, window, hop-count
- 2-point QoS metrics
- Computed statistics
- Frequency, mean, variance(σ), trending
- Combined multiple periods, allowing simultaneous click-stream time period analysis

XACCT PacketSight collects the basic metrics required to understand the application associated traffic flow on the wire. They include:

- Number of packets
- Number of bytes
- Number of transactions
- Amount of bandwidth consumed
- Length of time per flow

These statistics allow you to understand the real-time impact an application is having on the network. Beyond the basic statistics, XACCT PacketSight can collect metrics that measure the responsiveness of an application in the network to understand the end-user's perceived quality of service; non-responsiveness, jitter, latency, and burst rates.

Component Options

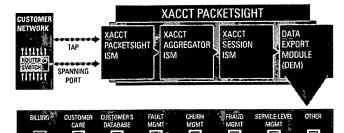
Components in XACCT PacketSight depend on the network configuration, and may include:

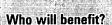
- PacketSight ISM
- Session ISM
- Aggregator ISM
- Gatherer
- Central Event Manager

System and Installation Requirements

Gigabit Ethernet

- Solaris™ 7 running on Sun SPARC™ platform (64-bit environment)
- Sun Enterprise™ 420R 4x450-MHz UltraSPARC II™ processors (64-bit architecture)
- 2GB of RAM on a dedicated computer
- 18.2GB internal hard disk
- 2xPCI Gigabit Ethernet network interface cards (Single Multimode Fiber Interface - Sun X1141A)





- Multi-vendor network users
- Content Delivery Networks
- Backbone/Wholesale providers
- Always-on broadband providers:
 - Wireless
 - Cable
 - DSL
 - ASPs
 - MSPs

Fast Ethernet

- Solaris 7 running on Sun SPARC platform (64-bit environment)
- Sun Enterprise 220R 2x450-MHz UltraSPARC II processor (64-bit architecture)
- 1 GB of RAM on a dedicated computer
- 18.2 GB internal hard disk
- Quad Fast Ethernet PCI card (from Sun or Antares)



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